

Claims

- [c1] 1.A ladder safety support for supporting a ladder on a surface, said support comprising:
connector configured to be fixed to the ladder;
a shiftable member shiftablely supported on the connector; and
a surface-penetrating stake configured to penetrate the surface,
said stake being coupled to the member, such that the stake is shiftable relative to the ladder.
- [c2] 2.The ladder safety support as claimed in claim 1,
said surface-penetrating stake having a lower tapered end portion presenting a pointed tip.
- [c3] 3.The ladder safety support as claimed in claim 1,
said surface-penetrating stake presenting an externally threaded upper end portion,
said shiftable member presenting an internally threaded section that threadably engages the threaded end portion of the stake.
- [c4] 4.The ladder safety support as claimed in claim 3; and
a lock nut threadably received on the stake and tight-

ened against the member, so as to secure the stake to the member.

- [c5] 5.The ladder safety support as claimed in claim 1, said stake presenting a penetrable stake length not less than about 1 inch.
- [c6] 6.The ladder safety support as claimed in claim 5, said stake length being not less than about 5 inches.
- [c7] 7.The ladder safety support as claimed in claim 5, said stake presenting a circular cross-section and an average stake diameter, wherein said diameter is not less than about .25 inches.
- [c8] 8.The ladder safety support as claimed in claim 7, said stake diameter being within the range of about .50 to 2.00 inches.
- [c9] 9.The ladder safety support as claimed in claim 1, said connector and member presenting slidably interconnected upright elements, with one of the elements presenting a plurality of spaced openings and the other of said elements presenting at least one hole, wherein said at least one hole is coaxially alignable with each of said openings so as to cooperatively define a plurality of combined openings; and
a securing assembly including a removable pin, wherein

at least a portion of the pin is received in one of said plurality of combined openings, so as to secure the member in a fixed position relative to the connector.

- [c10] 10.The ladder safety support as claimed in claim 9, said elements being telescopically interfitted.
- [c11] 11.The ladder safety support as claimed in claim 9, said securing assembly further including a clip operable to prevent the removal of the pin from the combined opening, and a flexible cable for interconnecting the clip and pin.
- [c12] 12.The ladder safety support as claimed in claim 9, said connector including at least one spacer configured to engage the ladder and space a corresponding one of the elements therefrom,
said connector further including a clamping plate configured to engage the ladder in such a manner that the ladder is sandwiched between the clamping plate and spacer,
said connector further including at least one fastener interconnecting the spacer and operable to fixedly couple the clamping plate to the ladder.
- [c13] 13.The ladder safety support as claimed in claim 1; and a surface-engaging plate coupled to the shiftable mem-

ber,
said surface-engaging plate presenting a substantially flat, downwardly oriented surface-engaging face that projects laterally outward relative to the stake, with the stake projecting downwardly beyond the surface engaging surface.

[c14] 14.The ladder safety support as claimed in claim 13,
said face presenting an area within the range of about 5 to 100 square inches.

[c15] 15.The ladder safety support as claimed in claim 13;
said surface-penetrating stake presenting an externally threaded upper end portion,
said shiftable member presenting an internally threaded section that threadably engages the threaded end portion of the stake,
said plate defining a plate opening,
said threaded portion of the stake extending through the plate opening,
a lock nut threadably received on the stake and tightened against the plate, so as to sandwich the plate between the lock nut and shiftable member.

[c16] 16.The ladder safety support as claimed in claim 1,
said stake being removably attached to the member; and
a surface-engaging pad removably attachable to the

member, so that the stake and pad are interchangeable.

- [c17] 17.A ladder assembly comprising:
a ladder including a plurality of upright stiles and a plurality of rungs extending between and spaced along corresponding ones of the stiles; and
a ladder safety support configured to support the ladder on a surface, said ladder safety support including—
an attachment assembly securing the support to the ladder, and
a surface-penetrating stake supported by the attachment assembly and configured to penetrate the surface.
- [c18] 18.The ladder assembly as claimed in claim 17,
said surface-penetrating stake having a lower tapered end portion presenting a pointed tip.
- [c19] 19.The ladder assembly as claimed in claim 17,
said surface-penetrating stake presenting an externally threaded upper end portion,
said shiftable member presenting an internally threaded section that threadably engages the threaded end portion of the stake.
- [c20] 20.The ladder assembly as claimed in claim 19; and
a lock nut threadably received to the stake and tightened

against the attachment assembly, so as to secure the stake to the attachment assembly.

[c21] 21.The ladder assembly as claimed in claim 17,
said stake presenting a penetrable stake length not less
than about 1 inch.

[c22] 22.The ladder assembly as claimed in claim 21,
said stake length being not less than about 5 inches.

[c23] 23.The ladder assembly as claimed in claim 21,
said stake presenting a circular cross-section and an av-
erage stake diameter, wherein said diameter is not less
than about .25 inches.

[c24] 24.The ladder assembly as claimed in claim 23,
said stake diameter being within the range of about .50
to 2.00 inches.

[c25] 25.The ladder assembly as claimed in claim 17,
said attachment assembly including a connector fixedly
attached to the ladder, and a shiftable member fixedly
attached to the stake,
said member being shiftable supported on the connector
so that the stake is shiftable relative to the ladder.

[c26] 26.The ladder assembly as claimed in claim 25,
said connector and shiftable member presenting slidably

interconnected upright elements, with one of the elements presenting a plurality of spaced openings and the other of said elements presenting at least one hole, wherein said at least one hole is coaxially alignable with each of said openings so as to cooperatively define a plurality of combined openings; and
a securing assembly including a removable pin, wherein at least a portion of the pin is received in one of said plurality of combined openings, so as to secure the member in a fixed position relative to the connector.

[c27] 27.The ladder safety support as claimed in claim 25, said elements being telescopically interfitted.

[c28] 28.The ladder safety support as claimed in claim 25, said securing assembly further including a clip operable to prevent the removal of the pin from the combined opening, and a flexible cable for interconnecting the clip and pin.

[c29] 29.The ladder assembly as claimed in claim 17, said attachment assembly including at least one spacer configured to engaging one of the stiles and spacing the connector therefrom,
said attachment assembly further including a clamping plate engaging the one stile, with the one stile being sandwiched between the clamping plate and spacer,

said attachment assembly further including at least one fastener interconnecting the spacer and operable to fixedly couple the clamping plate to the stile.

[c30] 30. The assembly as claimed in claim 17; and a surface-engaging plate coupled to the attachment assembly,

said surface-engaging plate presenting a substantially flat, downwardly oriented surface-engaging face that projects laterally outward relative to the stake, with the stake projecting downwardly beyond the surface engaging surface.

[c31] 31. The ladder assembly as claimed in claim 30, said face presenting an area within the range of about 5 to 100 square inches.

[c32] 32. The ladder assembly as claimed in claim 30; said surface-penetrating stake presenting an externally threaded upper end portion, said attachment assembly presenting an internally threaded section that threadably engages the threaded portion of the stake, said plate defining a plate opening, said threaded portion of the stake extending through the plate opening, a lock nut threadably received on the stake and tight-

ened against the plate, so as to sandwich the plate between the lock nut and attachment assembly.

[c33] 33.The ladder assembly as claimed in claim 17, said stake being removably attached to the attachment assembly; and
a surface-engaging pad removably attachable to the attachment assembly, so that the stake and pad are interchangeable.

[c34] 34.The ladder assembly as claimed in claim 17; and
a second ladder safety support attached to the ladder, and including –
a second attachment assembly securing the second support to the ladder, and
a second ground-penetrating stake supported by the second attachment assembly and configured to penetrate the ground, so as to cooperatively anchor the ladder in the secured position.

[c35] 35.The ladder safety support as claimed in claim 34, said first and second stakes each being selectively shiftable relative to the ladder, so as to present respective first and second sets of substantially equally spaced apart fixable positions,
said first and second pluralities of fixable positions being vertically offset.

- [c36] 36.The ladder safety support as claimed in claim 35, said first and second pluralities of fixable positions being vertically offset by .50 inches.
- [c37] 37.A ladder safety support for supporting a ladder on a surface, said support comprising:
a connector configured to be fixed to the ladder;
a shiftable member shiftablely supported on the connector; and
a surface-engaging pad removably fixed to the member, so that the pad is shiftable relative to the connector, said pad including an elongated rod presenting upper and lower rod ends, and a base universally connected to the rod adjacent the lower rod end, said rod having a threaded upper end portion, said shiftable member presenting a threaded section that threadably engages the threaded end portion of the rod.
- [c38] 38.The ladder safety support as claimed in claim 37; and a ball joint rotatably coupling the base to the rod at the first rod end.
- [c39] 39.The ladder safety support as claimed in claim 37, said base including a circular disc having an average disc diameter not less than about 3 inches.
- [c40] 40.The ladder safety support as claimed in claim 39,

said disc diameter being within the range of 5 to 50 inches.

[c41] 41.The ladder safety support as claimed in claim 37, said connector and member presenting slidably inter-connected upright elements, with one of the elements presenting a plurality of spaced openings and the other of said elements presenting at least one hole, wherein said at least one hole is coaxially alignable with each of said openings so as to cooperatively define a plurality of combined openings; and
a securing assembly including a removable pin, wherein at least a portion of the pin is received in one of said plurality of combined openings, so as to secure the member in a fixed position relative to the connector.

[c42] 42.The ladder safety support as claimed in claim 41, said elements being telescopically interfitted.

[c43] 43.The ladder safety support as claimed in claim 41, said securing assembly further including a clip operable to prevent the removal of the pin from the combined opening, and a flexible cable for interconnecting the clip and pin.

[c44] 44.The ladder safety support as claimed in claim 37, said connector including at least one spacer projecting

from the corresponding element and configured to engage the ladder so as to space the element therefrom, said connector further including a clamping plate configured to engage the ladder in such a manner that the ladder is sandwiched between the plate and spacer, said connector further including at least one fastener interconnecting the spacer and operable to fixedly couple the clamping plate to the ladder.

[c45] 45. The ladder safety support as claimed in claim 37, said threaded portion being externally threaded, said threaded section being internally threaded.